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JAPAN

Aktenzeichen/File No./No. du Dossier

RS 109870 JP

Datum/Date

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Das Europäische Patentamt übermittelt hiermit den Standardrecherchenbericht zu dem unten bezeichneten Antrag; Kopien der im Recherchenbericht angeführten Schriften werden in der Anlage beigelegt.

The European Patent Office herewith transmits the Standard Search Report relating to the request indicated below; copies of the documents cited in the search report are enclosed.

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Zeichen und Datum des Antrages Applicant's reference and date Références et date de la demande	
Dokument, Gegenstand der Recherche Document subject of the search Objet de la recherche	JPA 2003094953
Einreichungstag Filing date Date de dépôt	31/03/2003
Beanspruchte Priorität Priority claimed Priorité revendiquée	

OFFICE EUROPÉEN DES BREVETS
Pour le Vice-Président,

S. Reid



DOCUMENTS CONSIDERED TO BE RELEVANT						
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim				
X	EP 0 917 036 A (FUJITSU LTD) 19 May 1999 (1999-05-19) * column 1, line 46 - column 6, line 44 * * column 9, line 19 - column 18, line 43; figures 2-9 *	1-14				
X	US 5 349 486 A (SUGIMOTO MASA HARU ET AL) 20 September 1994 (1994-09-20) * column 6, line 3 - column 7, line 60; figures 7-10 *	1-14				
A	US 5 958 212 A (KUWAMOTO MAKOTO ET AL) 28 September 1999 (1999-09-28) * column 2, line 13 - column 12, line 25; figures *	1-14				
A	EP 0 715 308 A (HITACHI LTD) 5 June 1996 (1996-06-05) * abstract; claims 1-16; figures *	1-14				
A	PATENT ABSTRACTS OF JAPAN vol. 1997, no. 12, 25 December 1997 (1997-12-25) -& JP 09 204766 A (MATSUSHITA ELECTRIC IND CO LTD), 5 August 1997 (1997-08-05) * abstract; figures *	1-14				
A	WO 01 33103 A (BAR LEV NOAM) 10 May 2001 (2001-05-10) * abstract; figures *	1,12				
A	US 6 304 440 B1 (LIN LIKEN) 16 October 2001 (2001-10-16) * abstract; figures *	1,12				
A	WO 99 06902 A (FUJITSU LTD ; SILVERMAN IRA J (US)) 11 February 1999 (1999-02-11) * abstract; figures *	1,12				
The present search report has been drawn up for all claims						
Date of completion of the search 9 October 2003		Examiner Declat, M				
<table><tr><td>CATEGORY OF CITED DOCUMENTS</td><td>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document</td></tr><tr><td>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</td><td></td></tr></table>			CATEGORY OF CITED DOCUMENTS	T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document	
CATEGORY OF CITED DOCUMENTS	T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document					
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document						

TECHNICAL FIELDS
SEARCHED (Int.CL.7)

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ANNEX TO THE STANDARD SEARCH REPORT NO.

RS 109870

This annex lists the patent family members relating to the patent documents cited in the above-mentioned search report.
The members are as contained in the European Patent Office EDP file on
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09-10-2003

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
EP 0917036	A	19-05-1999	JP	11242881 A	07-09-1999
			EP	0917036 A2	19-05-1999
US 5349486	A	20-09-1994	JP	2777922 B2	23-07-1998
			JP	3241583 A	28-10-1991
			JP	2725071 B2	09-03-1998
			JP	3259488 A	19-11-1991
			JP	2777917 B2	23-07-1998
			JP	3104080 A	01-05-1991
			JP	2754413 B2	20-05-1998
			JP	3132986 A	06-06-1991
			CA	2025497 A1	19-03-1991
			DE	69029496 D1	06-02-1997
			DE	69029496 T2	10-04-1997
			EP	0419345 A2	27-03-1991
			KR	9501611 B1	27-02-1995
US 5958212	A	28-09-1999	JP	10222972 A	21-08-1998
EP 0715308	A	05-06-1996	JP	8161880 A	21-06-1996
			CN	1150694 A ,B	28-05-1997
			DE	69525818 D1	18-04-2002
			DE	69525818 T2	28-11-2002
			EP	0715308 A2	05-06-1996
			SG	38886 A1	17-04-1997
			US	5740011 A	14-04-1998
JP 09204766	A	05-08-1997	US	6567265 B1	20-05-2003
WO 0133103	A	10-05-2001	EP	1228324 A1	07-08-2002
			WO	0133103 A1	10-05-2001
US 6304440	B1	16-10-2001	NONE		
WO 9906902	A	11-02-1999	AU	8661098 A	22-02-1999
			EP	0948763 A1	13-10-1999
			JP	2001502103 T	13-02-2001
			WO	9906902 A1	11-02-1999
			US	6501644 B1	31-12-2002